

only. Some allowance must be made for the addition of one foot to this depth; and for the occasional discovery below the natural surface of the ground, of rock, where common earth alone had been expected. A provision has also been made for lining the inner slopes of the canal with stone, where it can be done at reasonable cost. All those expenses, together, may swell the cost of the first forty-eight miles of the canal to very near, or quite eleven hundred thousand dollars, or twenty-two thousand nine hundred and sixteen dollars per mile, exclusive of any allowance for damages to the proprietors of the lands through which the canal is conducted. Of this amount, the inner pavement is computed at near one thousand dollars a mile. It is designed to fit the canal for boats moving with more than ordinary velocity, by protecting its banks from washing.

By the increased dimensions of the canal, combined with the last mentioned provision, the President and Directors have sought to give every facility to that intercourse between the Eastern and Western States, which it is one of the objects of this great national work to promote.

The cross section of the Chesapeake and Ohio Canal will be found, on comparison with that of the Erie Canal of New York, to exceed the latter by nearly one hundred and twenty per cent. An excess leading to an advantage, the undersigned are prepared to shew, much exceeds in value the amount of its actual cost, since the most satisfactory experiments have demonstrated that a boat, adapted to the locks of both canals, can be impelled on that of greater volume, at the same velocity, with a force one third less than that required on the smaller canal, or in other words, that by the enlargement of the cross section of the Chesapeake and Ohio Canal, beyond that of the Erie Canal, an advantage has been gained for the former, much more than equivalent to the entire consumption of time by a lockage of more than three thousand two hundred feet. And this would be true, were a minute per foot allowed for passing through a